This listing of claims will replace all prior versions of claims in the present application:

Listing of Claims:

1. (currently amended) A coated optical fiber comprising:

an optical fiber having a core surrounded by a cladding and

a ~~radiation cured~~ polymeric coating applied to ~~at least a segment of~~ an outer surface of the cladding of at least a segment of the optical fiber, wherein said polymeric coating ~~composition~~ is selected so that in response to ~~a preload comprising the~~ application of a stress of about 80 MPa to said polymeric coating at about 80°C ~~and after~~ followed by a stress-relaxation period of at least about 1 ~~hour, at~~ hour at about 80°C, a residual stress exhibited by said polymeric coating ~~comprises~~ is at least about 60 MPa.

2. (currently amended) The fiber according to claim 1 wherein said polymeric coating is the cured reaction produce of a composition comprising ~~comprises~~ about 0-90 weight percent of an oligomeric component and about 5-97 weight percent of a monomeric component, and wherein said polymeric coating ~~having~~ has a Young's modulus of at least about 100 MPa.

3. (original) The fiber according to claim 2 wherein said monomeric component comprises at least one ethylenically unsaturated compound.

4. (currently amended) The fiber according to claim 2 wherein said ~~coating~~ composition is substantially devoid of said oligomeric component and said monomeric component comprises at least about two monomers.

5. (currently amended) The fiber according to claim 1 wherein said residual stress ~~comprises~~ is at least about 68 MPa.

6. (currently amended) The fiber according to claim 2 wherein said ~~coating~~ composition further comprises no more than about 4.0 pph of a silane containing adhesion promoter.

7. (currently amended) The fiber according to claim 1 wherein said residual stress ~~comprises~~ is at least about 76 MPa .

8. (currently amended) The fiber according to claim 1 wherein a thickness of said polymeric coating ~~comprises~~ is more than about 35 μm.

9. (currently amended) The fiber according to claim 8 wherein said thickness of said polymeric coating ~~comprises~~ is more than about 62.5 μm.

10. (currently amended) The fiber according to claim 1 wherein the polymeric coating has a Young's modulus ~~comprises~~ of at least about 100 MPa.

11. (original) The fiber according to claim 10 wherein said Young's modulus ~~comprises~~ is at least about 600 MPa.

12. (original) The fiber according to claim 1 further comprising a dual coating system applied to a second segment of said outer surface of said cladding.

13. (currently amended) The fiber according to claim 1 wherein said optical fiber ~~comprises~~ is a polarization maintaining fiber.

14. (currently amended) The fiber according to claim 1 wherein said polymeric coating has a Tg of at least about 70°C.

15. (currently amended) A polarization mode dispersion compensator for correcting polarization mode dispersion in an optical signal having a fast polarization mode component, a slow polarization mode component and a time differential between the components, the compensator comprising:

a phase shifter including an input and an output, wherein the input of the phase shifter is coupled to a single mode optical fiber that provides an optical signal that exhibits polarization mode dispersion, the phase shifter functioning to rotate the optical signal principal states of polarization to a desired orientation, the phase shifter further including at least a segment of

~~the~~ an optical fiber having a polymeric coating applied to an outer surface thereof , the polymeric coating being ~~coated with a composition, said composition~~ selected so that in response to ~~a preload comprising the~~ application of a stress of about 80 MPa to said polymeric coating at about 80°C ~~and after~~ followed by a stress-relaxation period of at least about 1 ~~hour, at~~ hour at about 80°C, a residual stress exhibited by said coating ~~comprises~~ is at least about 60 ~~Mpa~~ MPa, said polymeric coating being capable of transmitting a transverse stress to the optical fiber to controllably change the birefringence of the fiber~~, said composition applied to an outer surface of said fiber~~; and

a variable delay section including an input, an output and at least one optical fiber delay line, wherein the input of the variable delay section is coupled to the output of the phase shifter and the desired orientation of the optical signal principal states of polarization are substantially rotated to be in alignment with one of a fast axis and a slow axis of each of the fiber delay lines, and wherein the variable delay section functions to delay the principal states of polarization of the optical signal with respect to one another as a function of whether the principal states of polarization traverse said one of a fast axis and a slow axis of a given optical fiber delay line thus reducing the time differential between them.

16. (currently amended) The polarization mode dispersion compensator according to claim 15 wherein said polymeric coating is the cured reaction produce of a composition comprising ~~composition comprises~~ about 0-90 weight percent of an oligomeric component and about 5-97 weight percent of a monomeric component, said polymeric coating having a Young's modulus of at least about 600 ~~Mpa~~ MPa.

17. (currently amended) The polarization mode dispersion compensator according to claim 16 wherein said Young's modulus ~~comprises~~ is at least about 1000 MPa.

18. (currently amended) A polarization scrambler for determining whether an optical device exhibits polarization dependent characteristics, the polarization scrambler including an input and an output, the scrambler comprising:

a first optical fiber ~~including a first mechanical squeezer for applying a mechanical stress to the first optical fiber responsive to a first control signal, the first optical fiber~~ having a first end, a second end, a fast axis and a slow axis, wherein the first end of the first optical fiber acts as the input of the polarization scrambler, ~~the first mechanical squeezer aligned with the first optical fiber to engage a segment of the first optical fiber,~~ said ~~segment of the~~ first optical fiber having ~~encompassed with~~ a first coating applied to an outer surface thereof, said first coating selected so that in response to ~~a preload comprising the~~ application of a stress of about 80 MPa to said first coating at about 80°C ~~and after~~ followed by a stress-relaxation period of at least about 1 ~~hour, at~~ hour at about 80°C, a residual stress exhibited by said first coating ~~comprises~~ is at least about 60 MPa; ~~and~~

a first mechanical squeezer for applying a mechanical stress to the first optical fiber responsive to a first control signal, the first mechanical squeezer being aligned with the first optical fiber to engage a segment of the first optical fiber;

a second optical fiber ~~including a second mechanical squeezer for applying a mechanical stress to the second optical fiber responsive to a second control signal, the second optical fiber~~ having a first end, a second end, a fast axis and a slow axis, wherein the second end of the first optical fiber is coupled to the first end of the second optical fiber at an angle of about forty-five degrees with respect to the polarization axes of the first optical fiber, and wherein the second end of the second optical fiber provides the output of the polarization scrambler; and

a second mechanical squeezer for applying a mechanical stress to the second optical fiber responsive to a second control signal.

19. (currently amended) The polarization scrambler according to 18 wherein said first coating is the cured reaction product of ~~comprises~~ a first composition comprising about 0-90 weight percent of an oligomeric component and about 5-97 weight percent of a monomeric component, and wherein said first coating is capable of transmitting a transverse stress to the fiber to controllably change the birefringence of the fiber, ~~said first coating having~~ and has a Young's modulus of at least about 100 ~~Mpa,~~ MPa.

20. (currently amended) The polarization scrambler according to claim 18 wherein the second mechanical squeezer is aligned with the second optical fiber to engage a segment of the second optical fiber having a second coating applied to an outer surface thereof, the second coating being the cured reaction product of a second ~~comprising a radiation cured~~ composition comprising about 0-90 weight percent of an oligomeric component and about 5-97 weight percent of a monomeric component, and wherein said second coating is capable of transmitting a transverse stress to the fiber to controllably change the birefringence of the fiber ~~said second coating having~~ and has a Young's modulus of at least about 100 MPa~~, said second coating applied to an outer surface of the second optical fiber~~.

21. (currently amended) The fiber according to claim 1 wherein said Young's modulus ~~comprises~~ is at least about 1000 MPa.

22. (original) A telecommunications link comprising at least one polarization mode dispersion compensator according to claim 15.

23. (original) The telecommunication link comprising at least one polarization scrambler according to claim 18.

24. (new) An optical device comprising:

A coated optical fiber comprising:

an optical fiber having a core surrounded by a cladding, and

a polymeric coating applied to an outer surface of the cladding of at least a segment of the optical fiber, wherein said polymeric coating is selected so that in response to application of a stress of about 80 MPa to said polymeric coating at about 80°C followed by a stress-relaxation period of at least about 1 hour at about 80°C, a residual stress exhibited by said polymeric coating is at least about 60 MPa; and

a mechanical squeezer aligned with the optical fiber to engage the segment of the optical fiber.

25. (new) The device according to claim 24 wherein said residual stress is at least about 76 MPa .

26. (new) The device according to claim 24 wherein the polymeric coating has a Young's modulus of at least about 100 MPa.